



CR-2010

24-Port 100M SEP-SC Fiber + 2 Gigabit SEP-SC Fiber/TP(Fixed) Dual Media Port Intelligent Ethernet Switch

Key Features

- Supports in-band/out-of-band management
- Supports backpressure for half duplex and 802.3x flow control for full duplex
- Supports 2 FE ports on CPU board for management network
- Supports head of line (HOL) blocking prevention
- Max switching capacity: 8.8G non-blocking at wire speed
- Supports chassis ID for location alignment
- Supports management through any Ethernet port and RS-232
- Supports short message and email for trap and alarm
- Supports per port external loopback capability
- Supports port mirroring function
- Support MIB II, Bridge MIB, Ethernet MIB, Enterprise MIB, RMON I MIB
- Supports port-based/802.1v and 802.1q tagged VLAN, up to 256 active VLANs
- Supports IP multicast with IGMP snooping
- Supports Ethernet multicasting and broadcasting and flooding storm control
- Supports max of 50 per port allowed MAC address entries and 50 global denied MAC address entries for port security
- Supports max. 32 entries of illegal table
- Supports Auto-ping function with adjustable interval
- Supports 802.1p CoS with 2 level priority
- Supports detection of temp. x 2, voltage, fans speed x 3
- Supports 3 fans: two embedded in power and one driven by two power
- Supports dual redundant pluggable power with loading balance

Technical Specifications

- **Performance:**
 - Bandwidth: 8.8Gbps Switching Capacity
 - VLAN: 256 active
 - IP multicast table entries: 2k
 - Supports Packet length up to max of 1536 bytes long
 - Supports 10k MAC address table
- **Standards Compliance:**
 - IEEE 802.3u /z/x /ab /ad
 - IEEE 802.1d /p/q /v /x/advanced 802.1x
 - 100Base-FX Fast Ethernet Fiber Specification
 - 1000Base-SX/1000Base-LX Gigabit Ethernet Fiber specification
 - SNMP
 - RMON
- **Protocol Support:**
 - 802.1d/1w/1s STP
 - 802.3ad LACP
 - 802.1q with GVRP/GMRP/GARP
 - 802.1p priority queue
 - IGMP snooping
 - ARP, RARP, RIP, DHCP server/client/relay
 - Telnet, BootP, TFTP, FTP, HTTPD, NTP
- **Network Management:**
 - RFC 1213 MIB (MIB-II)
 - Interface MIB
 - Address Translation MIB
 - IP MIB
 - ICMP MIB
 - TCP MIB
 - UDP MIB
 - SNMP MIB
 - RFC 1757 RMON MIB
 - Statistics Group 1
 - History Group 2
 - Alarm Group 3
 - Event Group 9
 - RFC 1493 Bridge MIB
 - RFC 1643 Ethernet MIB
 - Enterprise MIB
- **Maximum Switching Ports:**
 - The maximum service port capability:
 - 24 Fast Ethernet ports
 - 2 Gigabit Ethernet ports

Overview

CR-2010 implements 24 100Mbps SEP /SC fiber ports and 2 Giga fiber (SEP/ SC)/TP(Fixed) dual media ports, specifically designed for MTU (Multi-Tenant Unit) application.

It's fully compliant with the standards of IEEE 802.3/u/x/z/ab. With SNMP agent and web-based management, the network administrator can log on the switch to monitor, and configure. In addition, CR-2010 abounds with functions, including QoS (Quality of Service), tag-/port-based VLAN, Port Trunking, Bandwidth Control, Port Security, Fail-over, RMON and IGMP snooping capability via the intelligent software. The overall network management is enhanced and the network efficiency is also improved to accommodate high bandwidth applications with security.

• Network Interface:

1000Base-T:

- Connectors: RJ-45
- Auto-Negotiation
- Transmission: Full/Half-Duplex
- Max. Cable Length: up to 100m

100Base-FX (Multi mode):

- Connectors: SC
- Transmission: Full/Half-Duplex
- Max. Cable Length: up to 2km for 50/125µ
- Wavelength: 1310nm

100Base-FX (Single mode):

- Connectors: SC / Bidi-SC
- Transmission: Full/Half-Duplex
- Max. Cable Length: 100km for 9/125µ
- Wavelength: 1310nm or 1550nm

1000Base-SX (Multi mode):

- Connectors: SC
- Auto-Negotiation
- Transmission: Full-Duplex only
- Max. Cable Length: 220m for 50/125µ
- Wavelength: 850nm

1000Base-LX (Single mode):

- Connectors: SC
- Auto-Negotiation
- Transmission: Full-Duplex
- Max. Cable Length: 50km for 9/125µ
- Wavelength: 1310nm or 1550nm

• Led Indicate

LED		Function
CPU Module	Power	Power status
	LNK/ACT (TPP1-P2)	Link and Activity status
	CPU run	CPU Activity status
Fiber Ports	FE Fiber: LNK/ACT	Port Link and Activity status
	Gbe Fiber: LNK/AC	TPort Link and Activity status
Gbe TP Ports	LNK/ACT	Port Link and Activity status

• Power

- Requirement
 - AC Power: 90 ~ 300VAC
 - DC Power: -36~-72VDC with two independent power cords
 - Power Consumption: 50W

• Ambient Temperature: 0 ~ 50°C

• Humidity: 5 ~ 90%

• Dimensions: 442(W) x 347.9(D) x 88(H) mm
(Standard 19" rackmount with 2U height)

• Certification: FCC Part 15 Class A, CE Mark

Ordering Information

Model Numbers	
CR-2010SP	24-Port 100M SEP-SC+2 Gigabit TP/SFP Dual Media Ports Managed Switch (without Power Module)
CR-2010GB	24-Port 100M SEP-SC+2 Gigabit TP/GBIC Dual Media Ports Managed Switch (without Power Module)
CR-2010-P01	1U AC Power Module
CR-2010-P02	1U DC Power Module

Optional SEP Fiber Module for 100M Port	
FM-SEP.SC	SEP, FE SC Multi-Mode Fiber Module 1310nm
FM-SEP.SC.S05	SEP, FE SC Single-Mode 5Km Fiber Module 1310nm
FM-SEP.SC.S20	SEP, FE SC Single-Mode 20Km Fiber Module 1310nm
FM-SEP.SC.S40	SEP, FE SC Single-Mode 40Km Fiber Module 1310nm
FM-SEP.SC.S60	SEP, FE SC Single-Mode 60Km Fiber Module 1310nm
FM-SEP.BS5.S20	SEP, FE BiDi SC Single-Mode 20Km Fiber Module 1550nm, Type 1
FM-SEP.BS3.S20	SEP, FE BiDi SC Single-Mode 20Km Fiber Module 1310nm, Type 2

Optional SFP Fiber Module for Gigabit Port	
SFP.LC	1000Base-SX GE SFP Multi-Mode Fiber Module 850nm
SFP.LC.S10	1000Base-LX GE SFP Single-Mode 10Km Fiber Module 1310nm
SFP.LC.S30	1000Base-LX GE SFP Single-Mode 30Km Fiber Module 1310nm
SFP.L5.S50	1000Base-LX GE SFP Single-Mode 50Km Fiber Module 1550nm
SFP.BL5.S10	1000Base-LX GE SFP BiDi LC 10Km Module Single Fiber 1550nm, Type 1
SFP.BL3.S10	1000Base-LX GE SFP BiDi LC 10Km Module Single Fiber 1310nm, Type 2
SFP.BL5.S20	1000Base-LX GE SFP BiDi LC 20Km Module Single Fiber 1550nm, Type 1
SFP.BL3.S20	1000Base-LX GE SFP BiDi LC 20Km Module Single Fiber 1310nm, Type 2

Optional GBIC Fiber Module for Gigabit Port	
GBIC.SC	1000Base-SX GE GBIC MM Fiber Module MM 850nm
GBIC.SC.S10	1000Base-LX GE GBIC 10Km Fiber Module SM 1310nm
GBIC.SC.S30	1000Base-LX GE GBIC 30Km Fiber Module SM 1310nm
GBIC.SC.S50	1000Base-LX GE GBIC 50Km Fiber Module SM 1550nm
GBIC.BS5.S10	1000Base-LX GE GBIC BiDi SC 10Km Module Single Fiber 1550nm, Type 1
GBIC.BS3.S10	1000Base-LX GE GBIC BiDi SC 10Km Module Single Fiber 1310nm, Type 2
GBIC.BS5.S20	1000Base-LX GE GBIC BiDi SC 20Km Module Single Fiber 1550nm, Type 1
GBIC.BS3.S20	1000Base-LX GE GBIC BiDi SC 20Km Module Single Fiber 1310nm, Type 2

Note:

We recommend the SFP transceiver from the following vendors:

1. Ruby Tech Corporation
2. Agilent Technologies
3. AVAGO Technologies
4. Finisar Corporation

Ruby Tech Corp.

2F, No.7, Lane 50, Nan Kang Road, Sec.3, Taipei, Taiwan
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